I claim:

- 1. In a process for the preparation of TS-1 catalyst particles suitable for the production of oxirane compounds, the improvement of reducing the average diameter of the TS-1 particles weighted by volume, to below 10 microns and spray drying an aqueous suspension of the size reduced TS-1 particles.
- 2. The process for producing an oxirane compound which comprises epoxidizing an olefin by catalytic reaction with hydrogen peroxide wherein the catalyst is produced by the process of claim 1.
- 3. The process for producing an oxirane compound which comprises reacting an olefin, hydrogen and oxygen at epoxidizing conditions in the presence of a catalyst comprised of a noble metal supported on TS-1 produced by the process of claim 1.
- 4. The process of claim 1 wherein the catalyst particles are also comprised of binder.
 - 5. The process of claim 2 wherein the olefin is propylene.
 - 6. The process of claim 3 wherein the olefin is propylene.
 - 7. The process of claim 3 wherein the noble metal is palladium.